DOCUMENT RESUME

ED 179 349 SE 026 845

AUTHOR Jones, Amber E.; Shapiro, Eileen C.
TITLE The Peak of the Pyramid: Women in Dentistry, Medicine and Veterinary Medicine.
PUB DATE 78
NOTE 25p.; Paper presented at the Conference on Expanding the Role of Women in the Sciences, New York Academy of Sciences (New York, New York, March 6-8, 1978)
AVAILABLE FROM ERIC Clearinghouse for Science, Mathematics, and Environmental Education, The Ohio State University, 1200 Chambers Rd., 3rd Floor, Columbus, OH 43212

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Career Opportunities; *Dentistry; *Medicine; *Professional Occupations; Sex Differences; *Veterinary Medicine; *Womens Education; Working Women

ABSTRACT

This paper examines: (1) selected aspects of the current status of women at the top of the hierarchies in the three health professions of dentistry, medicine, and veterinary medicine, and (2) some of the effects of the changing structure of the health care system on the present and future roles of the women in each of these professions. Besides increasing their numbers relative to the size of professions as a whole, women dentists, physicians, and veterinarians are now experiencing some common challenges due to restructuring of health-related professional educational programs. Changes in the role of health care professionals from providers of care to administrators and managers will have profound effects in the relationships among women of varying statuses within the health care industry. Challenges to women at the peak of the health care pyramid include the ability to assume the authority and power to influence the future directions of health care delivery in this country and to work with women at all levels in the health care industry to form a new order. (Author/MA)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED179349

THE PEAK OF THE PYRAMID:
WOMEN IN DENTISTRY, MEDICINE AND VETERINARY MEDICINE

AMBER B. JONES
ASSISTANT DIRECTOR FOR MANAGEMENT PROGRAMS
ASSOCIATION OF AMERICAN MEDICAL COLLEGES
WASHINGTON, D.C.

EILEEN C. SHAPIRO
ASSISTANT TO THE DEANS FOR MINORITIES AND WOMEN
HARVARD MEDICAL SCHOOL
HARVARD SCHOOL OF DENTAL MEDICINE
HARVARD SCHOOL OF PUBLIC HEALTH
BOSTON, MASSACHUSETTS

PAPER PREPARED FOR:
THE CONFERENCE ON EXPANDING THE ROLE OF WOMEN IN THE SCIENCES
THE NEW YORK ACADEMY OF SCIENCES
MARCH 6-8, 1978

SE 026 845

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Bill Boland
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

The health care industry is generally viewed as a hierarchy supported by a broad base of semi-skilled workers. This pyramidal structure is particularly dependent upon the availability of women laborers; in 1974, seventy-five percent (75%) of the health care labor force was female.[1] During the past ten years, the number of women at the peak of the health industry pyramid has increased dramatically. This increase has occurred at a time when health care consumers, as well as allied health professionals and hospital workers, have emerged as powerful and effective interest groups and at a time when the structures of health care institutions are undergoing great change. This provides the context for our paper; as we discuss the women at the peak of the pyramid in dentistry, medicine and veterinary medicine we use as our points of reference two critical issues: first, that increase in the numbers of women dentists, pyhsicians and veterinarians do not guarantee that these individuals will have either the authority or the power to influence the quality or the quanity of health care delivery; and second, that there is the potential for a powerful alliance among the relatively small number of women at the top of the health industry pyramid, the large number of women workers who form its base, and health care consumers (the majority of whom are female)--and there is also the potential for great conflict, particularly between the women health care workers at the top and at the bottom of the pyramid. This paradox encapsulates an important dilemna facing women health care providers today.

We have structured this paper in two parts: In the first part, we document selected aspects of the current status of women at the top of the hierarchies in the three health professions of dentistry,

medicine and veterinary medicine. In the second part, we discuss some of the effects of the changing structure of the health care system on the present and future roles of the women in each of these professions, particularly in terms of the increasing demand for managerial and administrative skills for health care professionals.

Before we proceed to these three health professions, it is important to review some of the reasons why the backbone of the health care industry is overwhelmingly female, particularly in the context of an issue clearly and succinctly expressed by Oleson; namely, that for women in leadership positions in health fields, most of the individuals in lower status positions over whom they will have authority and power are women.[2]

Why is there such a large numerical predominance of women among health workers? Brown offers the following explanations:

"1) Women represent an inexpensive source of labor; a work force composed predominantly of women costs less than one composed primarily of men;

"2) Because a much smaller percentage of women than men enter the labor force, women represent a major reservoir of available unemployed personnel; this competition for jobs keeps wages low;

"3) As a group, women lack access to social power in the forms of capital, specialized education, freedom from day-to-day household responsibilities, and the respect of political leaders. Thus, women in the aggregate pose little or no threat to

the power structure within the health industry;

"4) For social and economic reasons, women have limited occupational choices;

"5) Measured against the median income for women in all industries, pay in the health industry is still higher."[3]

With this in mind, we now briefly review several aspects of the status of women at the male-dominated pinnacle of a female-dominated structure, by looking at women in each of the three most visible health professions: dentistry, medicine and veterinary medicine.

WOMEN IN DENTISTRY

Of the three health professions considered in this paper, dentistry is the one that has the smallest proportion of women in its membership. The most recent figures we have indicate that as of 1974, there were 102,220 practicing dentists of whom three point two percent (3.2%) were women.[4] This statistic is surprising, particularly when the practice of dentistry is carefully inspected. In many countries, dentistry is considered a women's profession. Even in this country, as Schoen[5] points out, women constitute a majority of dental personnel if one includes dental assistants, hygienists and secretary-receptionists in the tally.

Women who enter dentistry and become practitioners appear to be significantly different than their male counterparts. Coombs'[6] 1975 research on factors associated with career choice among women dentists elucidates the disparities: women pursue a dental career

one or two years later than their male counterparts, frequently after having attended graduate school in the basic sciences or having worked in some scientific field. Two significant factors in their choice are peer approval and support from parents. More women dentists than male dentists have working mothers; in addition, both parents of women dentists are likely to be more highly educated than those of male dentists. Many women dental students have had work-related experiences in the dental field. The women students tend to be unmarried and to have grown up in non-urban areas. Finally, women who are dentists have more professional education than their male counterparts.

It is ironic that, even though there are so few women dentists, there are those who argue that dentistry is, by definition, a particularly suitable profession for women. In a 1974 article in the British Dental Journal,[7] the practice of dentistry is presented as an occupation of choice for women with family responsibilities on the following bases: (1) the lucrative remuneration which allows the purchase of domestic services and labor-saving devices; (2) the degree to which competency in practice skills can be retained when used on a part-time basis; and (3) the flexibility of working hours allowed by the non-emergency nature of most dental care. In spite of these factors, there are proportionately fewer women in dentistry in the United States than in any other health care occupation; according to statistics from the U.S. Department of Labor,[8] in 1972, only three percent (3%) of all practicing dentists were female as opposed to twelve percent (12%) of physicians and five percent (5%) of veterinarians.

Having made several observations about the suitability of

dentistry as a profession for women, it is appropriate to consider some of the support systems that have facilitated the entry of women into this field. The results of Linn's[9] 1970 study, based on a questionnaire sent to all women dentists in the United States, are strikingly similar to Coomb's study of women dental students. Linn's work suggests that American women who become dentists have had significant exposure to the field before entry. In addition, those women who have graduated from American dental schools reported having received personal support and encouragement from many sources including practicing professionals, relatives and friends. Apparently, for those hardy souls who can withstand the significant forces that would exclude women from the profession, familiarity with the functions of dentistry and support from important others constitute an effective arsenal.

WOMEN IN MEDICINE

Men who become physicians do so for reasons that are different than those given by women doctors. According to a 1976 study by Urban and Rural Systems Associates[10] (URSA), located in San Francisco, California, male students identify financial security, a comfortable lifestyle, and the status of the profession as chief attractions. Female students, on the other hand, identify the independence and power of the role of physician, the image of humanitarianism and the potential for challenging involvement as their motivators. The URSA Study goes on to report:

> "No set of pathways is distinctive to men or women, but one general difference does seem to emerge: men's routes to professional choice are less complex and more

> direct than are women's. This seems to be due to one quite clear and nearly universal difference between the decision-making patterns of men and women: because social expectations of men are unambiguous in terms of their adult roles as bread-winners and full-time workers, men do not make the decision of whether or not to construct a career but assume it and choose among available options. Social expectations of women, on the other hand, are quite ambiguous in this regard, and they must discover that they can be professionals and decide whether or not they will define a large part of their adult identity in terms of their construction of a career."[11]

There has been a wealth of research focusing on each of the many aspects of the training and career development of women doctors.[12-31] Perhaps the most provocative among these is Walsh's[27] history of women who have pursued medical careers. Walsh demonstrates that anti-feminism has constituted an overwhelming obstacle to the determined and talented women who have sought access to the medical profession. Although there are more women doctors than women dentists or women veterinarians, the net increase in the proportion of women physicians since the early 1900's has been extremely limited: in 1910, women represented six percent (6%) of the total number of physicians in this country. 1976 figures indicate that women comprise eight point six percent (8.6%) of the total number of U.S. physicians, a gain of two point six percent (2.6%) in sixty-six years. With female students comprising twenty-four point

seven percent (24.7%) of the entering first year medical school class in 1976-77,[32] it is clear that both the proportion and absolute numbers of women physicians are undergoing a significant increase. This increase in numbers of women doctors could have an important influence on the delivery of health care. Among the factors effecting whether these women will have such an influence are demand for services, sources of reimbursement, health care regulations and the socialization process experienced by all medical students and house officers.

WOMEN IN VETERINARY MEDICINE

Of the three professions addressed in this paper, veterinary medicine is the smallest. This is not surprising when numbers of training sites are considered. In academic year 1973-74, there were fifty-eight (58) dental schools, one hundred and fourteen (114) medical schools and only eighteen (18) schools of veterinary medicine.[33] In addition to being the smallest in terms of numbers of practicing professionals, veterinary medicine is different from dentistry and from medicine in that its clientele is animal rather than human. Of particular importance to women in veterinary medicine, however, is the fact that the focus of this profession has been changing; the URSA Study notes that while veterinary medicine is "still predominately an integral part of the national food supply production system, the demand for health care for urban and suburban pets has been increasing dramatically. Thus, small animal specialists have become a very much more substantial part of the profession, and this is reflected in a shift in the public's view of the profession from that of a primarily agricultural function to a more

humanitarian profession."[34]

The image of veterinarian as a masculine profession is comparable to that found in dentistry. This concept has been particularly true for the large animal practices and because of the inspection functions traditionally filled by veterinarians. As a result, statistics that indicate that veterinary medicine has experienced year classes between 1968-69 and 1974-75[35] than either dentistry or medicine are somewhat surprising. This growth in the number of women students may in part be a response to the demand for more veterinarians. However, it may also relate to the fact that improved technology in this field has reduced the need for practitioners to rely on brute strength in the rendering of treatment.

One of the characteristics of veterinary medicine that differentiates it from the other prestigious health professions is its limited reliance on individuals with training in allied health roles. The support staff systems found in general dental and medical settings do not exist in the practices of most veterinarians. In a way, this self-sufficiency makes veterinary medicine a more independent and entrepreneurial profession than its medical and dental counterparts; the pyramidal structure with professional decision makers buttressed by a variety of technical and support staff has not been traditionally a part of veterinary medicine. Thus, the number of women in occupations directly connected to the practice of veterinary medicine has been limited. There is, however, some evidence that a system of support staff is beginning to develop in this field. If such a system should emerge, there is little if any

reason to believe that the structure will differ from that found in dentistry or medicine. As a result, one could forecast increasing numbers of women selecting support roles in this field.

Individuals who select medicine and dentistry as careers frequently come from families which already include physicians and dentists respectively. Veterinary medicine differs from this pattern. To quote again from the URSA Styd, "veterinary medicine is not one of those professions which is handed down from preceding generations. In this respect, veterinary medicine is the least family-oriented of all of the following schools: medicine, osteopathic medicine, dentistry, veterinary medicine, optometry, podiatry, pharmacy and public health."[36] One can argue, therefore, that veterinary medicine provides an unusual opportunity for women: because there is not family tradition connected with the field, there is no heritage to suggest that only men should select this career option. As technical advances have been made and as the demand for veterinarians who favor small animals practices has grown, the logical barriers to women who would enter this field have fallen. The sharp increase in the numbers of women entering veterinary training programs is undoubtedly a reflection of these factors.

One last contrast between medicine and dentistry and veterinary medicine should be noted. Both medicine and dentistry have specialty training programs which follow the period of formal undergraduate professional education. Veterinary medicine, on the other hand, has very little to offer its students in the way of post-graduate education. As a result, the total amount of preparation for practice is shorter in veterinary medicine, a factor which may have appeal

for individuals who have obligations such that extended training is not possible or practical.

COMPARISONS AMONGST THREE PROFESSIONS

We turn now to some of the common issues facing women who select any one of these three professions as a career choice.

Table One shows the number of practicing women dentists, physicians and veterinarians as of 1970.

---

insert Table 1 about here

At that time there were 3,270 women dentists representing three point two percent (3.2%) of the active dental population; 21,474 women physicians, representing six point nine percent (6.9%) of the active physician population, and 1,320 women veterinarians, representing five point one percent (5.1%) of the active veterinarian population. While these figures represent the actual numbers of practicing female professionals as of 1970, they distort the present reality and future projections by their restrospective nature. A more reliable sampling of statics for discussions about the present and future status of women in dentistry, medicine and veterinary medicine is drawn from class composition data from training institutions, reflected in Table Two.

---

insert Table 2 about here

In 1974-75, there were 631 first year women in dental schools representing eleven point two percent (11.2%) of the entering class;

3,275 first year women in medical schools representing twenty-two point two percent (22.2%) of the entering class; and 407 first year women in schools of veterinary medicine representing twenty-four point four (24.4%) of the entering class. Comparable figures from five years earlier give some indication of the changing composition of entering classes by sex. In 1969-70, there were 58 first year women in dental schools representing one point three percent (1.3%) of the entering class; 948 first year women in medical schools representing nine point one percent (9.1%) of the entering class; and 146 first year women in schools of veterinary medicine representing ten point nine percent (10.9%) of the entering class. Thus, the number of professionals being trained in each field is rising as is the proportion of the total number of trainees that are women.

In addition to increasing their numbers relative to the size of professions as a whole, women dentists, physicians and veterinarians are now experiencing some common challgenges. We choose as an example the fact that the entire structure of health-related professional educational programs is changing. Universitites that have housed separate, and for all practical purposes independent, health professions schools are now beginning to recognize the similarities of some aspects of the several educational efforts. As a result, some university administrators are restructuring their institutions so that all of their health professions schools are conceptually unified within a 'Health Sciences Center.' This reorganization means that in those university settings that incorporate schools of dentistry, medicine and veterinary medicine, there is the potential for increased interaction among students and practicing professionals

from the collective of institutions represented. Ideally such a federation unites health professionals more closely through the sharing of training and of facilities. Since schools of nursing and the allied health professions which are traditionally populated primarily by women are also included in the Health Sciences Center concept, it is possible that there will be an opportunity for an increased interchange amongst the women of the various schools.

A second structural change taking place within the health professions, particuarlarly in dentistry, medicine and veterinary medicine, is the way in which health services are delivered. Although the following quote makes specific reference to physicians, similar statements are found in the literature describing current practices in dentistry and veterinary medicine:

> "Mounting health care delivery costs have stimulated interest, research and some experimentation in new organizational forms of care including a variety of types of group practice, pre-paid health plans, federally sponsored Health Maintenance Organizations, and others. The role of the physician in these forms of care is seen by most medical educators and experts to be significantly different than it is now. The physician is described as more an administrator and manager of other professionals and allied health professionals making up a health care team, less a deliverer of patient services."[37]

Thus not only are the types of practice changing, the role of the health care professional herself is also in a state of flux. The

overall effect of these changes is at the present time unclear. However, modification of the practice structure appears to be in the direction of enabling health care professionals a more standard, less intensive, work schedule by providing for shared coverage and by emphasizing the preventive aspects of health care.

The changing role of the professional, from provider of care to administrator may present some new and unanticipated challenges to the individual who has been trained as a clinician. Few, if any, health care deliverers are trained in the use of managerial skills or tools. In addition, much of the current management theory is based on the experience of managers in for-profit industrial settings. As a result, only a limited amount of the management literature is of relevance for individuals with administrative responsibilities in health care delivery settings. While men and women health professionals share the disadvantage of inadequate training in administration and decision-making, the effect of such inadequacies are perceived as being different for women than for men. Estler makes the following argument: "At higher levels, where policy is made, responsibilities cover a broader span and are less clearly defined. Such jobs often require response to a complex set of circumstances existing both within and outside the organization. In the absence of concrete, goal-related measures, readily observable factors such as race and sex may be used unconsciously as a proxy for assessing competence. In the face of uncertainty, familiar characteristics are reassuring to those who operate the filter points."[38]

If women in dentistry, medicine and veterinary medicine are to occupy positions of leadership and authority, they must address and

resolve conflicts at several levels. Not only are their male associates unlikely to perceive them as competent managers, other women within the health care hierarchy may resist task delegation and/or supervision from other women in senior roles; as Oleson eloquently argues:

> "The literature on women at work, as well as much of everyday life, makes it clear that both males and other females view women in leadership positions negatively. Repeated studies reveal that women prefer male supervisors to female supervisors, and even women leaders themselves...(have) stated that they would not feel comfortable working for a woman. These findings, coupled with the materials that show that some successful women discriminate against other females point to some of the difficulties which lie ahead for the woman who moves to a position where she supervises other women...Thus, discrepancies between the take-for-granted order of male dominance and female submission in American society which exist in the presence of female supervisors exercising authority over other females, even when the supervisor also can claim professional dominance, as with a female doctor, are such that strains ensue for all concerned in health care settings where this is the case."[39]

Women who move into administrative positions in health care institutions face what appears to be a paradoxical situation: again to quote Oleson:

> "the interpersonal dynamics which produce the negotiated order also produce a role structure in which affect is distributed. These latter two orders may not be congruent with the formal structure of authority in the setting. The creation and dispersal of knowledge is crucial to action; hence, where it is held by persons other than those in leadership positions, the exercise in power becomes problematic... It is crucial for women who aspire to and arrive in leadership positions to sense where knowledge is held, who generates it and to work with those lower status persons, mostly women, who have it..This also means that the socialization of women for leadership in health settings is crucially in the hands of other women: the secretaries, aides, clerks and technicians who staff such a setting."[40]

Thus the acquisition of administrative skills is only one prerequisite for women professionals who aspire to positions of leadership and authority; a second and not inconsequential requirement is the development of the ability to identify and utilize sources of knowledge and information wherever they are found.

SUMMARY

In summary, we have reviewed selected aspects of the status of women in dentistry, medicine and veterinary medicine by focusing on the women in the peak of the health care pyramid within the context of the fact that the vast majority of women health care laborers work

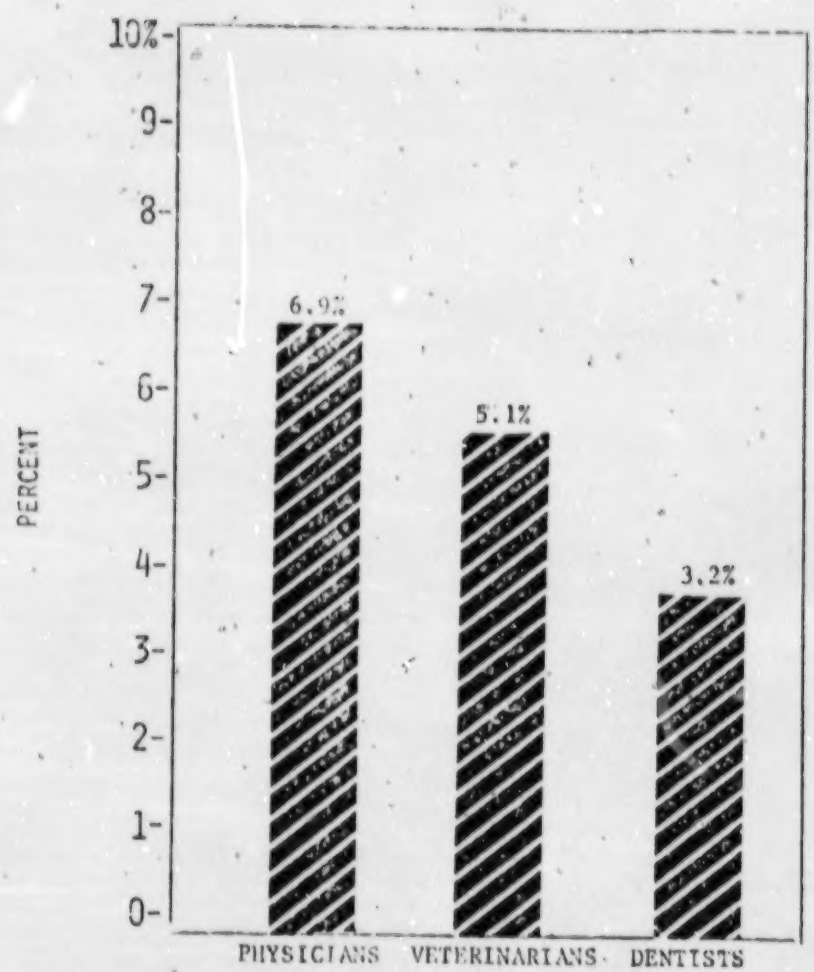
in support capacities at the bottom of the hierarchy. Changes in the role of health care professionals from providers of care to administrators and managers will have profound effects in the relationships among women of varying statuses within the health care industry. Of even greater possible impact is the potential of women health care providers at all levels in the hierarchy and women health care consumers to determine the quality and quantity of health services to be rendered in the future. If this potential is to be fulfilled, those women who are aspiring to careers in dentistry, medicine or veterinary medicine will need to carefully assess the education and training they will need to obtain, as well as the social and political forces that will effect their roles as administrators--i.e. as professionals who can mold the direction of health care delivery in the future. Whether women at the peak of the health care pyramid will be able to garner the authority and power to influence the future directions of health care delivery in this country, and whether women at all levels in the health care industry will work together to form a new order or whether they will identify on the basis of level in the hierarchy rather than sex, these are the questions of the next decade that feminists wishing to affect health care for women must face.

ACKNOWLEDGEMENT

This paper was developed with the capable assistance of Ms. Janice Scarborough, Management Advancement Program, Association of American Medical Colleges.

TABLE 1

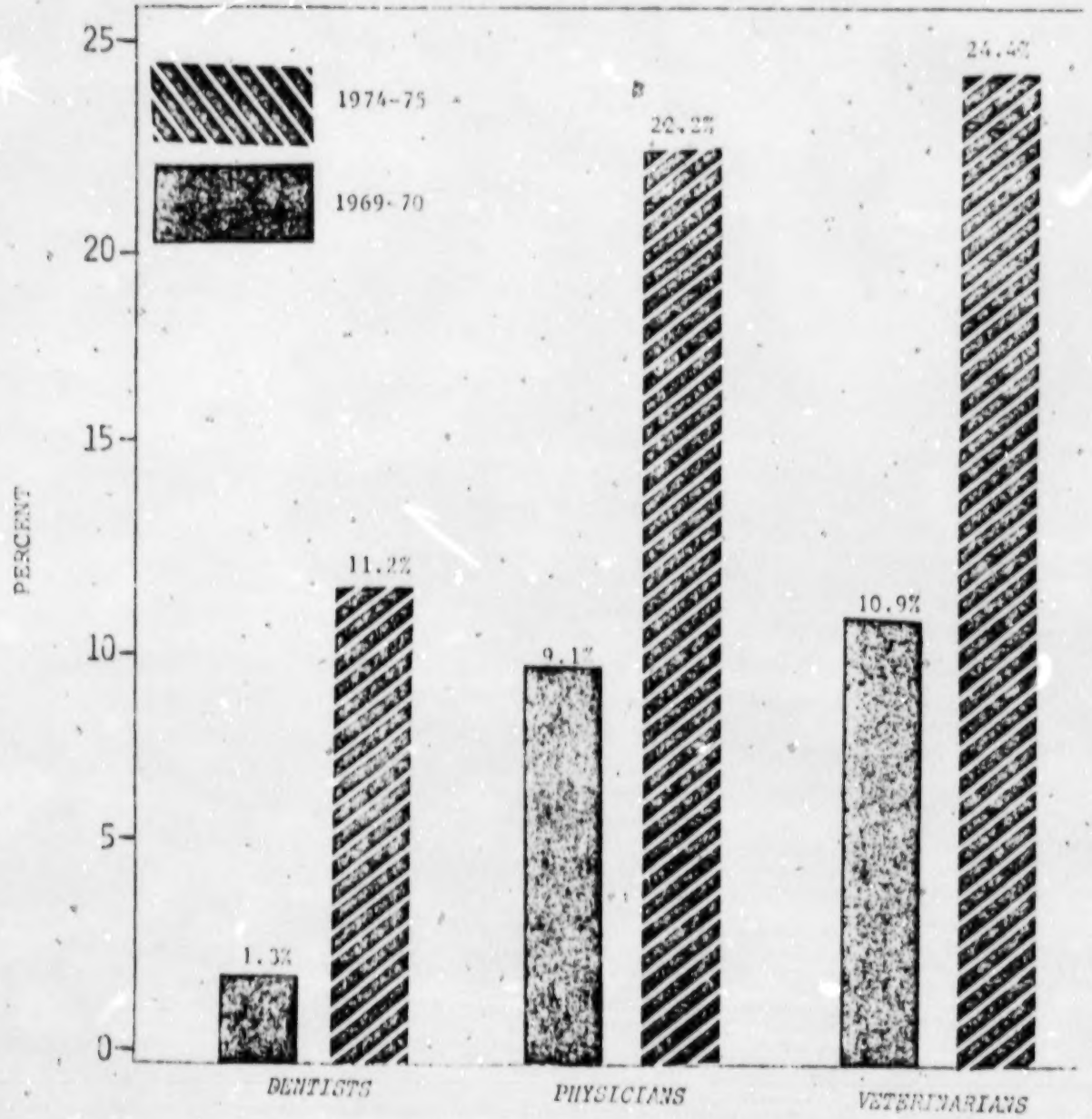
WOMEN WORKERS IN SELECTED HEALTH OCCUPATIONS, 1970



	PHYSICIANS	VETERINARIANS	DENTISTS
TOTALS	21,474	1,320	3,270

TABLE 2

NUMBER AND PERCENTAGES OF WOMEN AMONG FIRST-YEAR STUDENTS IN SCHOOLS OF DENTISTRY, MEDICINE, AND VETERINARY MEDICINE, 1969-1970 and 1974-1975



REFERENCES:

1. PENNELL, M. & S. SHOWELL. 1975. Women in Health Careers, Chart Book for the International Conference on Women in Health: 8. American Public Health Association. Washington, D.C.

2. OLESON, V. 1977. Reconceptualizing leadership: lower-status women and the exercise of power in health care settings. In Proceedings of the Conference on Women's Leadership and Authority in the Health Professions: 43-53. Department of Health, Education and Welfare. Washington, D.C.

3. BROWN, C.A. 1975. Women workers in the health services industry. International Journal of Health Services 5(2): 173.

4. Division of Manpower Intelligence. The Supply of Health Manpower, 1970 Profiles and Projections to 1990. 1974. Department of Health, Education and Welfare. Washington, D.C.

5. SCHOEN, M. 1975. Women in dentistry--a view from Stony Brook. New York Journal of Dentistry 45: 307-308.

6. COOMBS, J.A. 1976. Factors associated with career choice among women dental students. Journal of Dental Education 40: 724-732.

7. Report on part-time work for women dentists with family obligations. British Dental Journal 136 (no author or page number given). 1977. Quoted in An Analysis of Women in the Health Labor Force: An Exploratory Study of Five Health Occupations. The Radcliffe Programs in Health Care: Appendix A. Department of Health, Education and Welfare. Washington, D.C.

8. Women's Bureau. 1975. 1975 Handbook on Women Workers. Department of Labor. Washington, D.C.

9. LINN, E.L. 1970. Professional activities of women dentists. Journal of the American Dental Association 81(6): 1383-1387.

10. Urban and Rural Systems Associates. 1976. An Exploratory Study of Women in the Health Professions Schools II: 56-57.

11. Ibid.: 58-59.

12. CHAFF, S.L., R. HAIMBACK, C. FENICHEL & N.B. WOODSIDE. 1977. Women in Medicine: A Bibliography of the Literature on Women Physicians. Scarecrow Press. Metuchen, N.J.

13. CARTWRIGHT, L.K. 1977. Continuity and noncontinuity in the careers of a sample of young women pyhsicians. In Proceedings of the Conference on Women's Leadership and Authority in the Health Professions: 146-156. Department of Health, Education and Welfare. Washington, D.C.

14. HASELTINE, F. &Y. YAW. 1976. Woman Doctor. Houghton Mifflin Company. Boston, Mass.

15. HAUG, J.N. 1975. A Review of a women in surgery. Bulletin of the American College of Surgeons 60: 21-23.

16. HEINS, M., S. SMOCK, J. JACOBS & M. STEIN. 1976. Productivity of women physicians. Journal of the American Medical Association 236: 1961-1964.

17. KILSON, M. 1976. Women physicians in modern american medicine. Paper presented at the Macy Conference on Women in Medicine.

18. LOPATE, C. 1968. Women in Medicine. Johns Hopkins Press. Baltimore, Md.

19. MCGRATH, E. & C.N. ZIMET. 1977. Female and male medical students: differences in specialty choice selection and personality. Journal of Medical Education 52(4): 293-300.

20. MARKS, G. & W.K. BEATTY. 1972. Women in White. Charles Scribners and Sons Publishers. New York, N.Y.

21. Bureau of Health Resources Development. 1974. Minorities and Women in the Health Fields. Department of Health, Education and Welfare. Washington, D.C.

22. NAVARRO, V. 1975. Women in health care. New England Journal of Medicine 292: 398-402.

23. PENNELL, M. & S. SHOWELL. 1972. Distribution of women pyhsicians. Journal of the American Medical Women's Association 27: 197-203.

24. PLATT, L.I. 1951. Women doctors in Washington today: a statistical survey. Journal of the American Medical Women's Association 6: 446-447.

25. POWERS, L., R. OXFORD & R.B. WIESENFELDER. 1969. Practice patterns of women and men physicians. Journal of Medical Education 44: 481-491.

26. ROESKE, N.A. 7 K. LAKE. 1977. Role models for women medical students. Journal of Medical Education 52(6): 459-466.

27. WALSH, M.R. 1977. Doctors Wanted: No Women Need Apply. Yale University Press. New Haven, Conn.

28. WALSH, M.R. 1976. Feminism: A support system for women physicians. Journal of the American Medical Women's Association 31: 247-250.

29. WICKNER, H. 1974. Chief residents: new role models for women. Stanford M.S.: Stanford Medical Alumni Association 13: 22-24.

30. WICKLER, N.J. 1977. Coming in and moving up: women in the health professions. In Proceedings of the Conference on Women's Leadership and Authority in the Health Professions: 10-22. Department of Health, Education and Welfare. Washington, D.C.

31. WOODSIDE, N.B. 1975. Women in health care decision making. Paper presented at the International Conference on Women in Health. Washington, D.C.

32. DUBE, W.F. 1977. Medical Student enrollment, 1972-73 through 1976-77. Journal of Medical Education 52(2): 165.

33. Urban and Rural Systems Associates. 1976. An Exploratory Study of Women in the Health Professions Schools I: A165.

34. Urban and Rural Systems Associates. 1976. An Exploratory Study of Women in the Health Progessions Schools V: 3.

35. Ibid.: 4.

36. Ibid.: 44.

37. BARCLAY, W.R. 1973. The future of medical education and women in medicine. Journal of the American Medical Women's Association 28: 69-70.

38. ESTLER, S. 1977. Women in decision making. In Proceedings of the Conference on Women's Leadership and Authority in the Health Professions: 199. Department of Health, Education and Welfare. Washington, D.C.

39. OLESON, V. Ibid.: 46.

40. Ibid.: 49-50.

Caption for Table 1:

Source: Division of Manpower Intelligence. The Supply of Health Manpower, 1970 Profiles and Projections to 1990. 1974. Department of Health, Education and Welfare. Washington, D.C.

Caption for Table 2:

Source: Bureau of Health Resources Development. 1974. Minorities and Women in the Health Fields. Department of Health, Education and Welfare. Washington, D.C., except:

a. Unpublished data from the American Veterinary Association, Chicago, Illinois.

b. PENNELL, M. & S. STOWELL. 1975. Women in Health Careers, Chart Book for the International Conference on Women in Health. American Public Health Association. Washington, D.C.